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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,594	09/28/1999	GARY M. KING	PO9-99-147	2954

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BLANCHE E SCHILLER ESQ
HESLIN & ROTHENBERG PC
5 COLUMBIA CIRCLE
ALBANY, NY 12203

EXAMINER

PHAM, THOMAS K

ART UNIT	PAPER NUMBER
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2121

15

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/407,594

Applicant(s)

KING ET AL.

Examiner

Thomas K Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14, 16-25 and 27-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 9, 18, 19, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 10-14, 16, 17, 20-25, 27, 28 and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

1. This action is in response to the amendment filed on 3/11/2004.
2. New claims 32-34 filed by the applicants have been entered.
3. Claims 8, 9, 18, 19, 29 and 30 are allowed.
4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6-7, 10-14, 16-17, 20-25, 27-28 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,453,344 ("Ellsworth") in view of U.S. Patent No. 5,168,554 ("Luke") and further in view of U.S. Patent No. 6,260,068 ("Zalewski").

Regarding claims 1, 11, 21 and 22

Ellsworth teaches managing logical processors of a computing environment, comprising: configuring a logical partition of said computing environment with one or more logical processors (col. 6 lines 1-5, "the user of the ... I/O Configuration"); dynamically adjusting the configuration of the logical partition (col. 5 lines 1-7, "Dynamic CPU ... unwanted downtime") but does not show the automatically evaluating workload of the logical partition and

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automatically determining therefrom that said configuration of the logical partition is to be adjusted. However, Luke teaches automatically evaluating resource utilization and parallelism with respect to the virtual processors (col. 3 lines 65-68, "for evaluating resource utilization ... one or more virtual processors") for the purpose of computing the effective number of processors to be use. Furthermore, Zalewski teaches the dynamic reconfiguration of a multi-processor computer system without intervention of the system administrator (col. 4 lines 50-53, "In accordance with ... of the system administrator") for the purpose of reconfiguring the resource partitions without rebooting the whole system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate automatic evaluation of Luke with the logical processors of Ellsworth because it would provide for the purpose of computing the effective number of processors to be use for processing a task. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the automatic configuration of Zalewski with the system of Ellsworth and Luke because it would provide for the purpose of reconfiguring the resource partitions without rebooting the whole system.

Regarding claims 2, 12 and 23

Ellsworth teaches dynamically adjusting is in response to workload of said logical partition (col. 5 lines 15-22, "the multiprocessor system ... the server pool").

Regarding claims 3, 13 and 24

Ellsworth teaches dynamically adjusting comprises increasing a number of logical processors allocated to said logical partition (col. 5 lines 24-31, "the multiprocessor ... a pool as server 2-4").

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Regarding claims 4, 14 and 25

Ellsworth teaches dynamically adjusting comprises decreasing a number of logical processors allocated to said logical partition (col. 6 lines 50-54, “the logical processor ... remains shared”).

Regarding claims 6, 16 and 27

Luke teaches the determination is performed at a plurality of time intervals (fig. 10 and col. 10 lines 20-39, “the time process diagram ... the visible portion of the activity”).

Regarding claims 7, 17 and 28

Ellsworth teaches the algorithm steps for dynamic CPU configuration (col. 7 line 42-44) for the purpose of calculating the number of logical processors. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention that there is at least one predefined equation involved as part of the algorithm presented by Ellsworth for the purpose of calculating the number of logical processors based on the number of physical CPUs and the offline/online processors currently exist in the system.

Regarding claims 10, 20 and 31

Luke teaches comparing result times of a selected processor with the time thresholds to determine whether the adjustment is to be made (col. 10 lines 23-31, “The beginning and end ... the diagram time range”).

Regarding claims 32, 33 and 34

Ellsworth teaches dynamically adjusting the configuration of the logical partition without negotiating with another logical partition of the computing environment (col. 5 lines 15-22, “the multiprocessor system ... within the server pool”) for the purpose of increasing or decreasing the number of CPUs without a need to negotiate with any other logical partition.

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Response to Arguments

7. Applicant's arguments with respect to claims 1-4, 6-7, 10-14, 16-17, 20-25, 27-28 and 31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874. The examiner can normally be reached on Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor, *Mr. Anthony Knight*, can be reached on (703) 308-3179.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thomas Pham
Patent Examiner

TP

May 25, 2004

Ramesh Patel
RAMESH PATEL
PRIMARY EXAMINER
5/26/04
For Anthony Knight